



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/749,050	12/27/2000	Immanuel Krauter	10191/1642	5508

26646 7590 11/29/2005

KENYON & KENYON
ONE BROADWAY
NEW YORK, NY 10004

EXAMINER

HO, THOMAS M

ART UNIT PAPER NUMBER

2134

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/749,050	KRAUTER ET AL.	
	Examiner	Art Unit	
	Thomas M. Ho	2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/27/00</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. **Claims 1-9 are pending.**
2. **The RCE of 9/8/05 has been received and entered.**

Response to Arguments

2. Applicants arguments have been fully considered but are moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berra, US patent 5787367 and Komori, US patent 6044014.

In reference to claim 1:

Berra discloses a method for detecting a manipulation of a programmable memory device of a digital controller for a motor vehicle, comprising the steps of:

- Storing in the programmable memory device data and control programs for an operation of the digital controller and for a control/regulation of function of the motor vehicle, where the programmable memory device is flash memory that contains software to control the engine unit. (Column 1, lines 30-41) & (Column 5, lines 1-10)
- Storing information regarding a programming/reprogramming operation in a separate memory area of the programmable memory device where only reading and programming are possible (Column 1, lines 52-55), the step of storing information regarding the programming/reprogramming operation being performed in conjunction with each programming/reprogramming operation of the programmable memory device, where the information regarding the programming/reprogramming operation is stored in the authorization database and the memory of the programmable memory device. (Column 7, line 57 – Column 18, line 15)
- Reading out and comparing a content of the separate memory area with another set of information in order to detect a manipulation, wherein a remaining memory area of the programmable memory device is capable of being erased, where the separate memory area is the authorization database from which the encrypted information is compared. (Column 7, line 57 – Column 8, line 15), and where the ROMs used by Berra include EEPROMS and EPROMS which are ROMs capable of being erased. (Column 1, lines 57-67)

Berra fails to explicitly disclose a method wherein storing information regarding a programming/reprogramming operation including recording a number of times the programmable memory device has been programmed/reprogrammed.

Komori et al. Figures 3, 4, (Column 1, lines 38-63), (Column 4, lines 20-34), (Column 5, lines 30-41), (Column 6, lines 50-51) discloses storing information regarding a programming/reprogramming operation including recording a number of times the programmable memory device has been programmed/reprogrammed.

Komori et al. (Column 1, lines 38-63), further discloses that the reason this is performed, that is, the advantage of recording the number of times the ROM or EEPROM has been programmed or reprogrammed, lies in the fact that EEPROMs can only be written and rewritten a finite number of times. Thus, by recording the number of rewrites that have been made, one can be certain not to allow the number of rewrites to exceed a maximum allowable number of rewrites beyond which, the performance of the EEPROM may degrade or cannot be guaranteed.

It would have been obvious to one of ordinary skill in the art at the time of invention to storing information regarding a programming/reprogramming operation including recording a number of times the programmable memory device has been programmed/reprogrammed with the rest of the stored information of Berra in order to guarantee the number of rewrites does not exceed a maximum which is known to exceed a functional lifetime of the EEPROM, preventing the writing of data to a medium in which the functioning cannot be assured.

In reference to claim 2:

Berra discloses a database containing a series of variables and a password and serial identification number that must be compared to be fully authorized. (Column 3, line 7-35)

Komori et al. Figures 3, 4, (Column 1, lines 38-63), (Column 4, lines 20-34), (Column 5, lines 30-41) , (Column 6, lines 50-51) discloses an embodiment where in the separate memory area, information regarding a cumulative number of programming/reprogramming operations of the programmable memory device is stored.

Claim 3 is rejected for the same basis as claim 2.

In reference to claim 4:

Berra (Column 1, lines 42-65) discloses the method according to claim 1, wherein the information regarding the programming/reprogramming is stored in the separate memory area by setting bits, where it is known that digital information is stored as a series of zero and one bits.

In reference to claim 5:

Berra disclose the method according to claim 1, further comprising the step of:

Art Unit: 2134

Storing the information regarding the programming/reprogramming in a one-time-programmable region of the programmable memory device, the programmable memory device being arranged as a flash memory, where the flash memory that is one time programmable is known as a PROM.
(Column 1, line 41-54)

In reference to claim 6:

Berra discloses the method according to claim 1, further comprising the step of:

Storing in the separate memory area information from an external programming unit for programming/reprogramming a flash memory, where information is stored in the database concerning the authorization information necessary to program or reprogram the flash memory.
(Column 3, line 7-35)

In reference to claim 7:

Berra discloses the method according to claim 1, further comprising the step of:

Storing in the separate memory area information from an arrangement of the digital controller for storing the information regarding the programming/reprogramming operation, where information is stored in the database concerning the authorization information necessary to program or reprogram the flash memory. (Column 3, line 7-35)

In reference to claim 8:

Berra discloses an external programming unit for at least one of programming and reprogramming a flash memory of a digital controller for a motor vehicle, the flash memory including a programmable memory device, the external programming unit comprising:

- An arrangement for storing in the flash memory data and control programs for an operation of the digital controller and for a control/regulation of functions of the motor vehicle, where the programmable memory device is flash memory that contains software to control the engine unit. (Column 5, lines 1-10)
- An arrangement for storing information regarding a programming/reprogramming operation in a separate memory area of the programmable memory device where only reading and programming are possible (Column 1, lines 52-55), the storing of the information regarding the programming/reprogramming operation occurring in conjunction with each programming/reprogramming operation of the programmable memory device, where the information regarding the programming/reprogramming operation is stored in the authorization database and the memory of the programmable memory device. (Column 7, line 57 – Column 18, line 15)
- An arrangement for reading out and comparing a content of the separate memory area with another set of information in order to detect a manipulation, where the password and set of variables are read out and compared. (Column 7, line 40 – Column 8, line 15)
- An arrangement for storing in the separate memory area information from an external programming unit for programming/reprogramming the flash memory, wherein a remaining memory area of the programmable memory device is capable of being erased, where the separate memory area information is the authorization database. (Column 3,

lines 7-35), and where the ROMs used by Berra include EEPROMS and EPROMS which are ROMs capable of being erased. (Column 1, lines 57-67)

Berra fails to explicitly disclose a method wherein storing information regarding a programming/reprogramming operation including recording a number of times the programmable memory device has been programmed/reprogrammed.

Komori et al. Figures 3, 4, (Column 1, lines 38-63), (Column 4, lines 20-34), (Column 5, lines 30-41), (Column 6, lines 50-51) discloses storing information regarding a programming/reprogramming operation including recording a number of times the programmable memory device has been programmed/reprogrammed.

Komori et al. (Column 1, lines 38-63), further discloses that the reason this is performed, that is, the advantage of recording the number of times the ROM or EEPROM has been programmed or reprogrammed, lies in the fact that EEPROMs can only be written and rewritten a finite number of times. Thus, by recording the number of rewrites that have been made, one can be certain not to allow the number of rewrites to exceed a maximum allowable number of rewrites beyond which, the performance of the EEPROM may degrade or cannot be guaranteed.

It would have been obvious to one of ordinary skill in the art at the time of invention to storing information regarding a programming/reprogramming operation including recording a number of times the programmable memory device has been programmed/reprogrammed with the rest of

Art Unit: 2134

the stored information of Berra in order to guarantee the number of rewrites does not exceed a maximum which is known to exceed a functional lifetime of the EEPROM, preventing the writing of data to a medium in which the functioning cannot be assured.

In reference to claim 9:

Berra discloses a digital controller for a motor vehicle, comprising:

- A programmable memory device for storing data and control programs for an operation of the digital controller and for a control/regulation of functions of the motor vehicle, where the programmable memory device is flash memory that contains software to control the engine unit. (Column 5, line 1-10)
- An arrangement for storing information regarding a programming/reprogramming operation in a separate memory area of the programmable memory device where only reading and programming are possible (Column 1, lines 52-55), the storing of the information regarding the programming/reprogramming operation occurring in conjunction with each programming/reprogramming operation of the programmable memory device, where the information regarding the programming/reprogramming operation is stored in the authorization database and the memory of the programmable memory device. (Column 7, line 57 – Column 18, line 15)

- An arrangement for reading out and comparing a content of the separate memory area with another set of information in order to detect a manipulation, where the password and set of variables are read out and compared. (Column 7, line 40 – Column 8, line 15)
- An arrangement for storing in the separate memory area information from an arrangement of the digital controller for storing the information regarding the programming/reprogramming operation, wherein a remaining memory area of the programmable memory device is capable of being erased, where the separate memory area information is the authorization database. (Column 3, line 7-35), and where the ROMs used by Berra include EEPROMS and EPROMS which are ROMs capable of being erased. (Column 1, lines 57-67)

Berra fails to explicitly disclose a method wherein storing information regarding a programming/reprogramming operation including recording a number of times the programmable memory device has been programmed/reprogrammed.

Komori et al. Figures 3, 4, (Column 1, lines 38-63), (Column 4, lines 20-34), (Column 5, lines 30-41), (Column 6, lines 50-51) discloses storing information regarding a programming/reprogramming operation including recording a number of times the programmable memory device has been programmed/reprogrammed.

Komori et al. (Column 1, lines 38-63), further discloses that the reason this is performed, that is, the advantage of recording the number of times the ROM or EEPROM has been programmed or

reprogrammed, lies in the fact that EEPROMs can only be written and rewritten a finite number of times. Thus, by recording the number of rewrites that have been made, one can be certain not to allow the number of rewrites to exceed a maximum allowable number of rewrites beyond which, the performance of the EEPROM may degrade or cannot be guaranteed.

It would have been obvious to one of ordinary skill in the art at the time of invention to storing information regarding a programming/reprogramming operation including recording a number of times the programmable memory device has been programmed/reprogrammed with the rest of the stored information of Berra in order to guarantee the number of rewrites does not exceed a maximum which is known to exceed a functional lifetime of the EEPROM, preventing the writing of data to a medium in which the functioning cannot be assured.

Conclusion

5. The following art not relied upon is made of record:
 - US patent 6,081,447 discloses another system in which the number of programs and reprograms to a EEPROM is recorded.
6. Any inquiry concerning this communication from the examiner should be directed to Thomas M Ho whose telephone number is (571)272-3835. The examiner can normally be reached on M-F from 9:30 AM - 6:00 PM.

Art Unit: 2134

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory A. Morse can be reached on (571)272-3838.

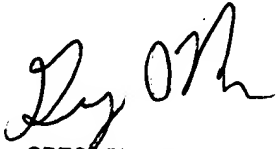
The Examiner may also be reached through email through Thomas.Ho6@uspto.gov

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-2100.

General Information/Receptionist	Telephone: 571-272-2100	Fax: 703-872-9306
Customer Service Representative	Telephone: 571-272-2100	Fax: 703-872-9306

TMH

November 15th, 2005


GREGORY MORSE
SUPERVISORY PATENT EXAMINER
TECHNOLOGICAL SERVICES